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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,422	12/19/2005	Daisuke Kuroda	050316	6152
23850 7590 03/24/2009 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005				
EXAMINER				
ZHU, WEIPING				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
03/24/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/535,422

**Applicant(s)**

KURODA ET AL.

**Examiner**

WEIPING ZHU

**Art Unit**

1793

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 11-16, 18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-16, 18 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 13, 2009 has been entered.

### ***Status of Claims***

2. Claims 1-8, 11-16, 18 and 20 are currently under examination wherein claims 1-8, 11-16 and 18 have been amended and claim 20 has been newly added in applicant's amendment filed on December 11, 2008.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8, 11-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berns (US 5,503,687) in view of Wikipedia ([http://en.wikipedia.org/wiki/Stainless\\_steel](http://en.wikipedia.org/wiki/Stainless_steel)) and further in view of Gordon (US Pub. 2002/0133225 A1).

With respect to claim 1, Berns ('687) discloses a method for producing a component comprising bringing a ferritic stainless steel component in contact with a gas containing nitrogen at a predetermined temperature to make the component absorb nitrogen to transform at least part of the ferritic stainless steel to austenite (claim 4 and abstract).

Berns ('687) does not specify the ferritic stainless steel is substantially free of nickel as claimed. However, it would have been obvious to one of ordinary skill in the art that the ferritic stainless steel of Berns ('687) would meet the claim limitation of the content of nickel, because ferritic stainless steel is well known to have very little nickel (which reads on the claim limitation of substantially free of Ni) as disclosed by Wikipedia.

Berns ('687) in view of Wikipedia does not specify the melting step of producing the ferritic stainless steel and the working step of working the ferritic steel to the component as claimed. However, it would have been obvious to one of ordinary skill in the art that the method of Berns ('687) in view of Wikipedia would comprise both steps, because Berns ('687) in view of Wikipedia teaches enriching the surface of a component made of low-nitrogen-content stainless steel produced by an open steel smelting process with nitrogen to increase the wear resistance of the component (col. 1, lines 5 to col. 2, line 2) and a working step will obviously be involved in shaping the stainless steel of Berns ('687) into the component of a desired shape (e.g. working a stainless steel tube into a stent as claimed).

Berns ('687) in view of Wikipedia does not specify the claimed stent expandable in outside diameter. Gordon ('225 A1) discloses a ferritic stainless steel stent (paragraph [0057]). It would have been obvious to one of ordinary skill in the art to use the nitrogen treated ferritic stainless steel of Berns ('687) in view of Wikipedia for a stent as disclosed by Gordon ('225 A1) with expected success because the compositions and the structures of the nitrogen treated ferritic stainless steel of Berns ('687) in view of Wikipedia and the ferritic stainless steel of Gordon ('225 A1) are similar. See MPEP 2144.05 I.

With respect to claims 2 and 3, Berns ('687) in view of Wikipedia and further in view of Gordon ('225 A1) does not specify the composition of the ferritic stainless steel as claimed. However, It would have been obvious to one of ordinary skill in the art that the composition of the ferritic stainless steel of Berns ('687) in view of Wikipedia and further in view of Gordon ('225 A1) would meet the imitations of Fe, Cr and/or Mn and Mo and/or Ti contents as claimed, because common ferritic stainless steel 434 includes by weight 16-18% of Cr and 0.75-1.25% of Mo as disclosed by Wikipedia.

With respect to claims 4, 5, 11 and 12, Berns ('687) discloses the treatment temperature is between 1000°C and 1200°C (Berns ('687), abstract), which overlaps the claimed temperature ranges.

With respect to claims 6, 7, 13, and 14, Berns ('687) discloses the nitrogen content of the nitrogen treated ferritic stainless steel is greater than or equal to 1.4% by weight (Berns ('687), col. 2, lines 25-35 and Figure 2), which overlaps the claimed nitrogen contents.

With respect to claims 8, 15 and 16, Berns ('687) discloses that the nitrogen treated stainless steel has a two-phase structure of ferrite and austenite or a one phase austenitic structure (Berns ('687), col. 1, lines 49-56).

With respect to claim 18, Gordon ('225 A1) discloses a ferritic stainless steel stent without limiting the thickness of the metal tube used to form the stent (paragraphs [0055]-[0057]). It would have been obvious to one of ordinary skill in the art to use the method of Berns ('687) in view of Wikipedia and further in view of Gordon ('225 A1) to produce a metal tube of thickness 50-400 microns as claimed with expected success, because Gordon ('225 A1) discloses that their method can be used for stents of any sizes desired (Gordon ('225 A1), paragraphs [0055]-[0057]). Furthermore, it is well settled that merely changing the size of an article is not a matter of invention. See MPEP 2144.04 IV.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berns ('687) in view of Wikipedia and further in view of Gordon ('225 A1) as applied to claim 1 above and further in view of Trozera (US 6,545,748).

Berns ('687) in view of Wikipedia and further in view of Gordon ('225 A1) does not disclose the presently claimed features. Trozera ('748) discloses coating a stainless steel tube with a photosensitive cross-linkable resist as claimed (col. 2, line 59 to col. 3, line 58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to coat a stainless steel tube of Berns ('687) in view of Wikipedia and further in view of Gordon ('225 A1) with a photosensitive cross-linkable resist as

disclosed by Trozera ('748) in order to make stents of various designs and configurations as disclosed by Trozera ('748) (col. 3, lines 51-55).

### ***Response to Arguments***

5. The applicant's arguments filed on January 13, 2009 have been fully considered but they are moot in light of new grounds of rejections as stated above.

### ***Conclusions***

6. This Office action is non-final. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZ

3/10/2009

/George Wyszomierski/  
Primary Examiner  
Art Unit 1793